



Yellowknives Dene First Nation

P.O. Box 2514, Yellowknife, NT X1A 2P8

June 15th, 2012

Chuck Hubert
Mackenzie Valley Environmental Impact Review Board
Box 938
Yellowknife, Northwest Territories
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Fax: (867) 766-7074



Dear Mr. Hubert:

Re: Fortune Minerals NICO Mine Technical Report

The Yellowknives Dene First Nation (YKDFN) would like provide the enclosed document as our submission for the Technical Report phase of this environmental assessment. We have tried to follow Appendix E of the Environmental Assessment Guidelines to the degree possible.

Fundamental to this process, YKDFN have focused on submitting our concerns of potential impacts with suggestions for appropriate mitigation or constructive recommendations that would reduce the likelihood of significant impacts – both as a result of this project and cumulatively across the landscape.

We hope that this can report will help inform the Review Board's decision process and would like to thank the Review Board for the opportunity to raise these issues, trusting that they will receive appropriate consideration in the final report. If you have any questions or concerns, please contact YKDFN Lands and Environment at 766-3496.

Sincerely,

Todd Slack

Copy: Chief Edward Sangris, Yellowknives Dene First Nations, Dettah NT; Fax: (867) 873-5969
Kerri Garner, Director of Lands – Tlicho Government, Behchoko NT; Fax (867) 392-6406
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Yellowknives Dene First Nation Land and Environment

Fortune Minerals Environmental Assessment - technical report (EA0809-004)

*From Yellowknives Dene First Nation
Fax: (867)766-3497*

*To Chuck Hubert
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June 17th, 2012

PLAIN LANGUAGE SUMMARY:

The Yellowknives Dene First Nation (YKDFN) concerns are primarily focused on trans-boundary issues and matters that may serve to establish troubling precedents in the NWT. This is not to say that the YKDFN are not concerned with issues that are local or more focused, rather that the YKDFN support the Tlicho Government's position with respect to how their traditional territory is to be utilized and respected. Fortune Minerals do not live or rely on this land – it is the Dene people who will be here long after this company has left behind its minesite and its legacy – the wishes of the Tlicho people must be respected and their concerns must be accommodated. The history of the North is replete with examples of when this has not occurred – Colomac, Giant, Tundra – and YKDFN want to ensure that companies, governments and regulators of the North have learned from these examples. If the process respects the desires and concerns of the people who live and rely on the land, there will never be another example of a contaminated site that requires hundreds of millions of dollars to clean up. YKDFN have always expressed a desire to work with industry, but any potential resource exploitation must be done in a way that is based on respect and cooperation.

1.0 NON-TECHNICAL SUMMARY:

The following main themes are the foundation of this Technical Report:

- Caribou & Cumulative effects – the proponent has still not completed a *complete* cumulative effects analysis. What has been done involved haphazardly applying the projects ‘inclusion criteria’ in an inconsistent manner. Subsequent work filed to the registry does not accurately evaluate the impacts to other parts of the range where caribou are more likely to be effected by industrial developments – namely the creation of linear barriers and the increasing developments in and around the calving areas. Lastly, YKDFN are concerned with the widespread utilization of Woodland Caribou research in lieu of actual research on Barren Ground Caribou. Despite their genetic similarity, these two species react to stimulus and events in different ways, and occupy different habitats.
- The traditional knowledge report prepared by the Tlicho introduces considerable uncertainty with regards to not just the companies assertions in regard to the impact predictions associated with Woodland Caribou. The validity of the other TK conclusions and information collected by the company is also questionable and YKDFN are concerned that the information collected does not capture the knowledge and wisdom of the people who use and rely on the land. Furthermore, the TK evidence introduced creates an issue with the appropriateness of using Woodland Caribou as an analog for the Bathurst Caribou. The TK evidence submitted to the board shows that the two species react very differently.
- The Review Board issued clear direction to help address the primary concern of the Yellowknives Dene with this project – impacts on wildlife. In the Terms of Reference, Appendix F, item 5: “Describe Fortune’s draft wildlife management plan, including...”. YKDFN have concerns with how the plan will be moved to completion, as there are significant gaps in the framework (i.e. behavior, barrier effects of the road, impacts of additional harvesting, inclusion of TK in monitoring), a complete lack of independent oversight and monitoring review, and a lack of a statutory instrument that would allow a regulator to force the completion of an effective WEMP and adaptive management scheme that will respond to concerns of communities and monitoring results (as outlined in Appendix J, Item 5).
- The company has consistently refused to address incineration related issues – management, furans and dioxins - other than to defer it the permitting process. This is despite the Board’s clear direction in the Terms of Reference and the YKDFN’s concern that to defer this matter is empty and inadequate. The ‘trust us - we’ll do it later’ approach is unacceptable in this case as there is no regulatory mechanism to address failures and malfunctions of the incinerator. This is a lesson learned from the other industrial developments – where exceedences of the guidelines occurred at all three diamond mines and years passed before any action (adaptive management or not) occurred - the only tool available to enforce compliance was pressure from the First Nations and the oversight boards. YKDFN do not wish to see this situation repeated – clear direction from the Review board measure would ensure compliance in this regulatory void.
- The company has failed to meet the Terms of Reference with regards to Closure Planning. Without a sound and considered framework, with clear goals, components, objectives and where possible – closure criteria, it is difficult to have a reasonably complete understanding of just how the proponent intends to close the minesite. This is complicated by the use of

imprecise language that weakens potential commitments and direction to the point where the company is not bound to complete any work and the site will be left to nature's whim. This complicates the security bonding for this project – an exercise already complicated because of the extremely long closure period (> 100 years) which introduces a very large element of risk. This environmental risk cannot be mitigated at a later date with additional funds because of the limited financial flexibility associated with a company with a single development. Thus the project must submit sufficient funds to not just address the worst case environmental situation, but also must include a very large contingency to address the increased risk of unforeseen or unplanned events associated with such a prolonged period prior to final closure.

2.0 INTRODUCTION:

The Yellowknives Dene First Nation (YKDFN) provides this Technical Report to the Review Board as evidence to assist in decision-making in the NICO Project's (EA0809-002) environmental assessment, as outlined in the Developer's Assessment Report and related documentation. Fortune Minerals Ltd, a company based in southern Canada, is the proponent. If approved, this will be their first property in production.

2.1 Organization

The YKDFN membership primarily resides in the two communities of Dettah and Ndilo. The Chief Drygeese Territory lies to the east of the project site. YKDFN are concerned with the impacts of the project on the land, the animals, and the water that they rely on. YKDFN are not just concerned about the impacts in the short term, but also far into the future. It is not the Fortune shareholders or the employees who will feel the effects, but the people who rely on the land – for 70 years the YKDFN have paid the price to support mineral development. YKDFN has practiced land management since time immemorial, with a single rule – if you take care of the land, it will take care of you.

Lands and Environment has two staff with administrative support and seeks to provide YKDFN perspective on all matters relating that impact the Chief Drygeese territory or critical values that the membership rely on.

2.2 List of Issues or Topics

In this report, the YKDFN provide specific comments related to environmental and socio-economic impacts as a result of the activities proposed to develop the Nico Mine. We have selected the five most pressing issues for the Review Boards consideration.

Where possible, YKDFN has provided recommendations to the Review Board to assist in its decision making process. Without the recommended mitigation efforts, YKDFN believe that the likelihood or risk of significant impacts will be high. The five areas that YKDFN have chosen to address as their primary concerns are:

- 3.1-3.3 Caribou
- 3.4 Use of TK in the Assessment
- 3.5 Wildlife Effects Management Plan
- 3.6 Airborne Emissions
- 3.7-3.8 Closure and Reclamation

If this environmental assessment is not completed with the highest regard for environmental quality and appropriate checks and balance to ensure long term success, this project will never achieve it's multiple goals. To extract the ore and make money for their investors is only one goal - it must do it in a way that does not significantly impact the environment in either the short or the long term. Other, lesser impacts must be offset by ensuring that the benefits to people of the North are maximized and that the only ones who profit are not southern interests who see little virtue in ensuring that the people prosper. Our Northern landscape is littered with examples which saw almost all of the profit flow south while all of the liabilities accrued and remain to this day.

3.0 SPECIFIC IMPACTS

3.1 Woodland Caribou Impact Predictions

Impact: The quality of traditional knowledge collected and presented by the company has led to impact predictions that are incorrect.

Developer's Conclusion: The NICO Project is predicted to have a negligible effect on the population size and distribution of the Woodland Caribou herd (Round 1 Information Request TG_12).

YKDFN Conclusion: The project did not adequately address the impacts to Woodland Caribou. The behavioural response of woodland caribou to development and activity is well known - this mine will create a 'primary pathway' that will have residual effects that will contribute to shrinking the range of this species at risk.

Rational to support conclusion: In the DAR, the project does not acknowledge or consider Woodland Caribou in the wildlife pathways and/or as a listed Species at Risk, which requires special consideration. However, in the Information Requests the project accepts that Woodland Caribou are "likely present" in the study area, but refuses to address the potential impacts. The WRRB study provides clear evidence that this area is indeed Woodland Caribou habitat. In response, the company has effectively stated that this information is not relevant to their analysis and there is no need to assess the impacts to this species. YKDFN strongly disagree and are troubled with the companies approach to incorporating traditional knowledge.

The role for this information is not just in the monitoring stage, as suggested by the company. Certainly specific steps to monitor for Woodland Caribou should form part of the WEMP, but given the companies dismissal in the IRs, at the Technical Session, and now when confronted by evidence, YKDFN do not believe that developing and implementing a monitoring effort absent some type of statutory backing is likely.

Recommendation:

- a) The Board must require the company to collaboratively develop an assessment evaluating the impacts that this project will have on Woodland Caribou. This should be submitted to the registry prior to the hearing.
- b) YKDFN respect the Board's ruling on the delay to allow the Tlicho Traditional Knowledge report currently in preparation to be entered prior to the hearing, but we ask the Board to:
 - keep the registry open to allow the report to be submitted after the hearing
 - allow Parties be allowed to submit comments to the Board
 - ensure that the evidence submitted in the Tlicho study is reviewed prior to the decision being issued.

3.2 Using Woodland Caribou Research as a Surrogate for Barren Ground Caribou

Impact: The project routinely utilizes Woodland Caribou and Reindeer research as an analog for Barren Ground Caribou, introducing considerable uncertainty to the predictions.

Developer's conclusion: It is reasonable to expect that the behavioural response to development is similar for both caribou subspecies in the region (Golder Response to YKDFN concern – item C, February 27th meeting memorandum)

YKDFN conclusion: The response of Woodland Caribou and Barren Ground Caribou are often different and to assume that they will respond the same because they are the same species does not correspond to the evidence in front of the Board.

Rational to support conclusion: While there are certainly some similarities between the subspecies, the Traditional Knowledge report makes it clear that these two animals respond differently to stimulus. Widespread use of non-'subspecies' specific research introduces uncertainty and leads to poor impact assessments.

Recommendation: Prior to the commencement of the Wek'eezhi Land and Water Board permitting:

- the proponent should identify all of the areas that Woodland Caribou or Reindeer research was used as an analog or substitute for Barren Ground Caribou
- for each of these instances, the proponent should review the available behaviour research, including traditional knowledge, and prepare a discussion that considers the uncertainty and impacts if the reliance on scientific of a different kind of caribou is misplaced.
- the proponent should be required to undertake behavioural research of both woodland Caribou and Barren Ground Caribou to establish a better baseline for each subspecies response to disturbance.

This information would be extremely useful for helping the Parties improve the design of the WEMP, ensuring that conclusions drawn are being thoroughly examined.

3.3 Caribou Assessment

Impact: Throughout the process the proponent has artificially limited the cumulative impact study.

Developer's conclusion: The current level of development, with some reasonably foreseeable projects, will not impact the availability or distribution of caribou across their annual range.

YKDFN conclusion: The impacts from development across the annual caribou range are not clear – the study prepared in the DAR and the subsequent memorandum does not fully capture the reasonable future case.

Rational to support conclusion:

The Yellowknives Dene has been forced to make great sacrifices and endure hardship because of the current limited availability and restricted distribution of Barren Ground Caribou. If this project does not alter the current population or distribution, but does limit the recovery of the herd, then this would be a significant impact.

The only mitigation to the low caribou numbers enacted to date has been a restriction in the amount of harvesting. Business has continued as before – exploration and development has increased in recent years in the NWT and Nunavut. YKDFN Elders and Traditional Knowledge holders routinely state that the existing mines have impacted the caribou herds, resulted in a change to migration routes, and affected the health of the animals and limiting the number of animals.

- In Round 2 Information Request YKDFN_2.1 the company indicates that they could not include the Back River or Hackett River project because they did not have a project footprint. However, what project footprint they used for Damoti Lake is unclear.
- The inclusion of the additional projects, presenting a more realistic picture, has increased the amount of good and high quality habitat impacted from 6.1% to 10.7%. This shows the impact associated with adding even a few additional projects – it's unclear how much higher the landscape impact would be with a more fulsome analysis.
- Furthermore, this analysis does not consider the impacts associated with the increasing levels of development in and around the calving, post-calving and summer ranges where Barren Ground Caribou are more sensitive to disturbances. Thus, the values presented are not nearly as conservative as suggested by the company and may actually be understatements in terms of the impacts. The DAR acknowledges that impacts in areas other than the winter range are more severe (p8-104) but supplemental information does not address this issue
- The introduction of new roads and routes throughout the range of the Bathurst Herd will increase harvesting access in the NWT and NU. Increased access means increased pressure regardless of the government policies in place. This is acknowledged in the DAR, but the improved access was considered only in the winter range with the more limited scale of projects. The Bathurst Port and Road, the Gahcho Kue spur, the Taltson right of way, and the High Lake Road serve to add access throughout much of the annual range.
- The analysis that the company conducted to consider caribou interactions with the NPAR and Winter Road corridor was conducted for a period since 1996 (Round 2 IR YKDFN_2.3). During the first few years of the analysis, limited as it was in terms of resolution, there was considerable level of interception. That roads cause impacts to caribou movement cannot be denied as there is indisputable evidence from the north, research focused on Barren Ground Caribou – the roads will act as barriers to movement. At Ekati, Caribou were deflected at the Misery Road approximately 57% of the observed events from 2002 to 2010 (2010 WEMP). With this in mind, YKDFN are concerned that the impact of the improved and much busier roads is not just in from the potential zone of influence and avoidance, but that it will serve to remove part of the annual range that lays to the west of the road corridors – interrupting some of the migration and travel routes.
- Accepting that the road will act as a leaky barrier to movement, YKDFN are concerned that the creation of the NPAR and the creation of an all weather road will serve to sever part of the caribou range. The collar data shows that the number of interceptions was highest during

periods of high herd populations, suggesting that this part of the range is most commonly used during periods of large herds (Traditional Knowledge could confirm this). If so, but the road constrains the ability of the herd to disperse as it has traditionally, YKDFN are concerned that the size of the herd will be artificially limited and the ‘amplitude’ of the population cycle will be suppressed, meaning that there will progressively be less caribou available for harvesting for the next generation and those that follow. This concern has not been considered or addressed.

- The effect associated with the alteration of 10% of the annual range is expected to be a low magnitude effect according to the proponent. They assert that significant effects did not begin until 20% of the range was impacted. YKDFN contend that even a low impact event at this point could have serious effects considering the importance of the species to the people of YKDFN. This is not a black or white situation – impacts occur on a scale here - if significant effects occur when the 20% threshold is exceeded, it is not to say that there aren’t impacts at 19%. Given the level of sacrifice and hardship experienced by the YKDFN at this point, the fragility of a potential herd recovery, and the overall uncertainty, further action must be taken.

Recommendation: YKDFN would like the Review Board to make a measure that requires the proponent to:

- a. Update and submit a cumulative effects analysis that considers not just all the reasonably foreseeable projects across the annual range of the Bathurst Caribou but also the relative difference of effects on different seasonal ranges – for instance, how do the impacts on the post calving compare and contribute to the cumulative effects for the herd.
- b. This analysis should consider the impacts as a result of the creation of barriers to movement and prepare a comprehensive analysis of Barren Ground Caribou responses to roads and road activity.

Once these are complete, only then can the decision on significant impacts be considered. The YKDFN are already under considerable strain and have made great sacrifices – if development results in an extension to that hardship, then a significant impact will be occurring. Contrary to the assertions of developers, once the mines and their infrastructure are in place there is little real mitigation possible.

3.4 Traditional Knowledge in the Environmental Assessment

Impact: Given the new information found in the WRRB Woodland Caribou Report, YKDFN are concerned that the overall level of TK collection may be similarly lacking. As a result, conclusions and impact assessments now have additional uncertainty and potentially more risk attached.

Developer’s conclusion: The project timeline allows ample time for the consideration of the Tlicho TK Study despite it being submitted after the Hearing.

YKDFN conclusion: That the results of the Tlicho TK Study must be considered along with the remainder of the evidence submitted with the registry remaining open and the inclusion of a comment period. To complete the assessment without incorporation of the results is to send a sign that poor preparation and collection of traditional knowledge is acceptable.

Rational to support conclusion:

Considering that the Board and the Parties now have conclusive evidence that the conclusions drawn by the developer on the issue of Woodland Caribou are incorrect, there is a clear concern associated with other themes and predictions.

Recommendation: YKDFN recommend that:

- the Board should keep the registry open until after the Tlicho TK Study is completed
- develop a concordance table that examines how and where the developer used Traditional Knowledge, what the information that they had was, and what the information from the Tlicho TK Study is
- provide parties the opportunity to review and comment on these matters

3.5 Wildlife Effects Management Plan

Impact: The uncertainty associated with the WEMP creates the possibility that it can be designed in such a way as to not meet the goal of collecting appropriate data to evaluate impacts, thereby allowing significant impacts to occur.

Developer's conclusion: These plans are appropriately developed at the regulatory stage.

YKDFN conclusion: There is no regulator for Wildlife related issues, thus the MVEIRB is the only mechanism where the plan can be designed and implemented with a regulatory backing.

Rational to support conclusion:

Neither the Land and Water Board or the GNWT have the authority or statutory instruments to require the development of a Wildlife Effects Management Plan or to enforce it. Even with a signed Environmental Agreement ENR has had significant difficulty in forcing industrial developments to adhere to best practices in the territory. Furthermore, when companies fail to meet commitments or chose to step back from their research efforts, there is no mechanism to compel the company to act

Recommendation:

YKDFN recommend that the Board:

- a) Make the development and full implementation of a Wildlife Effects Management Plan a requirement for any future permits or authorizations
- b) Require the proponent to collaborate with parties to develop a consensus approval to the methods employed. This ensures that the proponent cannot simply refuse to meet its commitments and provides the Parties with a tool to use if best practices are not applied. This approach could also be used to develop thresholds and triggers for adaptive management plans.
- c) Require the proponent to include (but not be limited to) research to evaluate and monitor: trends associated with the hunting effort on the NPAR and associated all weather road, applying

the best practices for researching behavioural response of Barren-Ground Caribou, and evaluating caribou interactions with the NPAR access and all weather road.

YKDFN are not asking the Board to design the plan, rather to develop a system that provides for meaningful collaborative development where there is a regulatory backdrop for parties to utilize to require best practices aimed at effective monitoring and research.

3.6 Incinerator Management Plan – Persistent Organic Pollutants

Impact: A lack of an Incinerator Management Plan could allow the company to release significant amounts of pollution to the environment, including persistent organic pollutants, without a regulatory response.

Developer’s conclusion: Despite clear language in the Terms of Reference and community concerns, the company refuses to acknowledge that this is a potential issue.

YKDFN conclusion: The regulatory loophole, inadequate monitoring, and the lack of local baseline data will not only create a situation which allows the proponent to emit almost any amount of pollution, but also that poor operations cannot be regulated. In any event, given the lacklustre commitment to monitoring, none of the Parties will have sufficient information to tell if the company is complying with the CCME guidelines. Even if there was a meaningful monitoring program, the effects to the local environment would not be detectable as the company has not collected adequate sediment data to allow analysis – we don’t have a starting point to evaluate the impact of the mine.

Rational to support conclusion: There is no regulatory mechanisms for emissions in the NWT, the monitoring commitment only involves pre-commissioning stack testing, and there is no baseline for Dioxins or Furans in the local environment. Thus, there is no way to require the company to conform to the guidelines, there is no sampling to ensure that they are, and in the event that they are exceeding the guidelines, there’s no way to establish the level of impact that they’ve had on the local environment, especially to the water, fish and sediments. This is a top to bottom failure meaning that remedying one of these matters does nothing to address the systematic failure.

YKDFN have consistently asked the company to make commitments or to provide the plan as required by the Terms of Reference, to which they have refused:

- November 30th, 2009, Terms of Reference – See Key Line of Inquiry 3.3.9: “Describe proposed mitigations and any plans for air quality monitoring, evaluation and adaptive management”; Appendix A: item 12: “Physical and chemical makeup of soils and water body sediments”; and Appendix H: Air Quality, item 3c “develop and describe and incineration management plan” (emphasis added);
- December, 2011 – Round 1 Information Requests YKDFN_3.1 – The company does not provide a plan, again (as in the DAR) indicating that it will be developed at some point in the future. The company does not intend to establish a baseline for Persistent Organic Pollutants or to commit to any testing beyond “stack test the incinerator while burning sewage sludge prior to the commissioning”

- Thus, the commitment to meet the CCME guidelines is empty as there will be no confirmation nor will there be the appropriate information to determine if there has been an impact.
- February 7th, Technical Session – YKDFN ask the company to respond and indicate what commitment they will make with regards to incinerator management and especially what the response will be when guidelines are exceeded. The company indicates they will provide a response on February 9th
- February 9th, Technical Session – No response provided.
- April 2nd, Email – YKDFN again ask the company to respond.
- April 25th, Email – the company provides a response via Golder indicating that the Incinerator Management Plan will not be provided at this point, nor are they in a position to provide a commitment as to what the response if guidelines are not met.
- May 2012, Round 2 Information Requests – The company again indicates that they will not provide an incinerator management plan, but also that they are not amenable to establishing a local baseline for Persistent Organic Pollutants (which are a result of incineration, especially if poor operational management occurs).

As we have seen with all other industrial developments, once permitted, there is little that any party can do to require change, regardless of how poorly the incinerator is run.

Recommendation:

YKDFN recommend that the Board make a measure that requires:

- a) the company to conform to the CCME guidelines
- b) implement a monitoring regime that includes testing to confirm that the company is meeting the guidelines. This monitoring regime should include regular testing as directed by Environment Canada.
- c) develop a local baseline for persistent pollutants

This will allow the parties to have a regulatory mechanism to utilize to ensure good corporate behaviour with regards to this issue. Absent this measure, the company is free to pollute in any manner they wish.

3.7 Failure to provide adequate closure information

Impact: Mine planning is not just how to get the valuable material out of the ground, it must also consider the long term impacts. YKDFN believe that the lack of information, with poor structure and clarity of language create a situation where Parties do not have a full understanding of the companies intent. Because of the long closure period – over 100 years and the companies limited financial flexibility, clarifying the intent and closure objectives during the Environmental Assessment is essential to understand the likely impacts.

Developer's conclusion: Generally speaking, the proponent has concluded that effective closure planning can wait. Engagement with communities on closure objectives and commitments, discussion on vegetation, considering guidance documents issued since 2002 – these are matters for later. Fortune states that because “the DAR was in conformity with the TOR” they do not need to collaboratively

develop goals and objectives, closure components and criteria, or identify information gaps – they are content with the state of their management plan.

YKDFN conclusion: YKDFN believe that the framework of the conceptual closure plan must be prepared prior to the Environmental Assessment decision for the parties and the Board to evaluate. This must conform to the Terms of Reference and more recent guidance from regulators and best practices from other mines.

It is the Review Boards job to consider IF this project should proceed – the Land and Water Boards only consider HOW a project can proceed. YKDFN believe that success or failure of the closure is a significant impact, while the lack of clear commitments, goals and objectives introduce additional risk to the process. The current language in the DAR is flexible enough that the project proponent can do almost anything and call it a successful closure while leaving behind a site unacceptable by communities. By unilaterally defining the end goals, failing to provide component based objectives, and ignoring the requirement to provide any closure criteria, the parties will be unable to evaluate success or even understand the long term impacts.

Rational to support conclusion:

- Closure has been a significant issue for the Parties and the Board and forms a Key Line of Inquiry (KLOI 3.3.3) with an appendix for guidance on what information requirements were necessary to allow parties to evaluate the issue.
 - The first item under the KLOI concordance table 9.1-1 discusses the policy and guidelines the company used in developing the preliminary Closure and Reclamation plan. The response found in section 9.0 indicates that this plan was “developed to meet the requirements in the in the *Mine Site Reclamation Policy for the Northwest Territories (DIAND 2002)*”. In Round 2 IR YKDFN_3.2 the company states “If we look back at the history of closure and reclamation goals and objectives over the last 20 years in the NWT we see that standards and methods for addressing closure issues have changed considerably”. One of YKDFN’s issues with the Closure plan, as it currently stands, is that it has not incorporated any of the lessons, guidelines, policy or best practices from the last 10 years. This ‘plan’, which YKDFN have asked to be updated throughout the process, ignored the 2007 DIAND policy and ignored the best practices drawn from BHP’s and Diavik’s ICRP process.
- Fortune did not provide meaningful closure objectives for list of components under section 9.1.2. Nor did they consider the variable objectives listed throughout section 9 in a component manner – these ‘objectives’ (say under 9.2) could generally better be described as goals.
- The criteria to evaluate either of the objectives which should have been created or the ones which are provided is wholly absent. This information is required under KLOI 3.3.3, first bullet and Appendix D, Item 2a.
 - The options and alternatives analysis required under Appendix D, Item 2b only discusses three components and was unilaterally selected by the proponent based on the goals that they have outlined. Community wishes were not adequately incorporated.

- Appendix D, Item 2f – A post closure monitoring plan is not provided and the conceptual points discussed in section 9.6 are empty as the lack of objectives and criteria mean that the monitoring that is done is not linked to the Component, Objective, or Criteria. While some of this is suited for the regulatory stage, deferring every matter until after the project has been approved does not fit within the MVRMA review process
- The Yellowknives Dene has pushed for an update to this in all phases of the Environmental Assessment. The 2nd Round Information Request response for YKDFN_3.2 is telling: *“The MVEIRB stated that the DAR was in conformity with the TOR, which includes the level of detail provided on closure and reclamation”*. Simply because the MVEIRB judged the DAR in conformity is not enough – the DAR must provide adequate information to assess the impacts. YKDFN had hoped that the plan could be updated to better conform to the MVLWB guidelines (and by happenstance, the Terms of Reference) that were recently released to allow a more meaningful discussion, but the company refused.
 - Once again a company is misunderstanding the role of the conformity check - simply because the conformity check was completed it does not address the quality of the response (MVERIB EIA Guidelines, section 3.12)
- An example of the empty and meaningless language: From the overview of the Engagement Process, 9.4.2.1: “Fortune’s reclamation objective is to allow for the re-establishment of self-sustaining habitat that is suitable for wildlife”
 - This statement means absolutely nothing as there is no way that it can fail - the company can leave the site alone for 250 years and some type of habitat will exist that will be suitable for some type of wildlife. It could be argued that the closure scheme for Giant Mine was to allow it to stabilize and some type of habitat would have eventually been established – none of which would be desired or healthy.
- Another example of the empty language from section 9.4.4.5.2.2: “The current revegetation management objective will be to create a stable and favourable landscape that will *encourage* natural colonization, encroachment and regeneration of endemic plant species. This will be complemented by planting or seeding *where required*” [italics added].
 - This is not a revegetation plan so much it is a grading plan. Rather than the ‘revegetation objective’ being something concrete that discusses how the revegetation will be judged successful, this language states that the company only needs to grade the site in a manner that they say encourages revegetation to close the mine. The only active measure is potential planting or seeding, without any indication as to when this would be required, which could mean never. As the company does not place an economic value on healthy land or the water (Rnd 1 IRs, YKDFN_1.5), we can only presume that these actions will never be undertaken except where explicitly mentioned.
 - For example, Round 1 IR YKDFN_4.4 explicitly states that the CDF will be revegetated with grasses, but it does not provide any discussion as to how parties can evaluate this as a success.

The company will have met their reclamation commitment simply by planting, if the revegetation succeeds is irrelevant.

- The company has not adequately responded to the Board's requirement to prepare a Vegetation Monitoring Plan "that will assist in achieving objectives described in a closure and reclamation plan" (Appendix I: Item 8). The company response in 14.10 is that they 'anticipate' that a monitoring plan will be required. Section 18.5.2.3 does not contain a plan either and section 9.4.1.3.1 only notes that a revegetation plan is expected to help in the success reclamation of the site. The language is currently written in such a way that there is no guarantee that the site will ever be revegetated or how it will be evaluated, so there can be little doubt that by the companies definition, the site will be successfully reclaimed.
- In this same IR response, Fortune believes "that the stated approach provides the best means of re-establishing natural habitat conditions". YKDFN disagree. It represents the cheapest and the easiest, but the best method would be to active aid nature in repairing the damage that the company does to the land – a plan based on measurable objectives that allows that allows for Parties to evaluate success.

Recommendation: The Board must require the proponent to collaboratively develop and submit an updated closure plan which adequately meets the guidance of the Terms of Reference and the policy frameworks in the NWT. This must be done prior to the issuances of any decisions or authorization.

3.8 Closure – Security Bonding

Impact: The extremely long closure period for this development introduces both additional levels of risk but also new types of risk.

Developer's conclusion: AANDC and the MVLWB will set the security and there are no unique concerns with this project.

YKDFN conclusion: With the uncertainty associated with the current closure 'plan' and the very long term associated with closure, the likelihood of significant impacts exists without additional consideration and mitigation

Rational to support conclusion: There are two issues at work with this issue – the first is that this project extends the closure obligations many years into the future (six generations) which turns low likelihood events into much more probable occurrences. For example, if there is a 1% risk of an event which would have a significant impact in any year, then it eventually becomes likely that this will occur over a hundred years.

Associated with this risk is the uncertainty of predicting the costs associated with the potential remediation that will be needed, but also the yearly monitoring. Given the uncertainty, it seems likely that company will eventually be in a position where it may be economically advantageous for the proponent to walk away from their liability – the discussion at the technical sessions did nothing to

provide comfort. The company will have little ability to raise money after the initial period of production and AANDC admitted that in the past they have not prepared security estimates based on a worst case scenario. When combined with unforeseen events and little contingency, there seems a great risk that the people of the NWT will be again burdened with a development that they are forced to pay in order to clean up.

YKDFN have previously asked both the proponent and AANDC to provide examples that evaluated the performance of security bonding to address a company's environmental liability. Neither Golder/Fortune or AANDC was able to provide an example. In the end, YKDFN did discover a case where the company defaulted on their liabilities and a security bond was in place. It was only 13 years ago and occurred right here in the NWT - Colomac had a security bond of \$1.5 million in 1999. Though there has been no formal evaluation of the performance, but as cleanup costs have exceeded \$135 million, it seems that the available history of environmental bonding leaves some room for improvement. YKDFN have little confidence that a security established in the next twenty years will stand the test of time.

Recommendation: The review Board should provide guidance to the Land and Water Board that this project will likely result in significant effects unless a security is posted that contains not just sufficient monies for a 'worst case situation' (perpetual water treatment) as well as a significant contingency for unforeseen events. This should be evaluated by a third party to ensure that the citizens of the NWT are protected, which will default in a company that meets its commitments – if the bond is large enough, the company will be motivated to perform in the way that they've said they would during the assessment and permitting phases.

4.0 SUMMARY OF RECOMMENDATIONS:

3.1 Woodland Caribou Impact Predictions

- a) YKDFN recommend that the Board require the company to collaboratively develop an assessment evaluating the impacts that this project will have on Woodland Caribou.
- b) YKDFN respect the Board's ruling on the delay to allow the Tlicho Traditional Knowledge report currently in preparation to be entered prior to the hearing, but we ask the Board to:
 - keep the registry open to allow the report to be submitted after the hearing
 - allow Parties be allowed to submit comments to the Board
 - ensure that the evidence submitted in the Tlicho study is reviewed prior to the decision being issued.

3.2 Using Woodland Caribou Research as a Surrogate for Barren Ground Caribou

Recommendation: Prior to the commencement of the Wek'eezhi Land and Water Board permitting:

- the proponent should identify all of the areas that Woodland Caribou or Reindeer research was used as an analog or substitute for Barren Ground Caribou
- for each of these instances, the proponent should review the available behaviour research, including traditional knowledge, and prepare a discussion that considers the uncertainty and impacts if the reliance on scientific of a different kind of caribou is misplaced.
- the proponent should be required to undertake behavioural research of both woodland Caribou and Barren Ground Caribou to establish a better baseline for each subspecies response to disturbance.

- a) This information would be extremely useful for helping the Parties improve the design of the WEMP, ensuring that conclusions drawn are being thoroughly examined.

3.3 Caribou Assessment

Recommendation: YKDFN would like the Review Board to make a measure that requires the proponent:

- a. Update and submit a cumulative effects analysis that considers not just all the reasonably foreseeable projects across the annual range of the Bathurst Caribou but also the relative difference of effects on different seasonal ranges – for instance, how do the impacts on the post calving compare and contribute to the cumulative effects for the herd.
- b. This analysis should consider the impacts as a result of the creation of barriers to movement and prepare a comprehensive analysis of Barren Ground Caribou responses to roads and road activity.

Once these are complete, only then can the decision on significant impacts be considered. The YKDFN are already under considerable strain and have made great sacrifices – if development results in an extension to that hardship, then a significant impact will be occurring. Contrary to the assertions of developers, once the mines and their infrastructure are in place there is little real mitigation possible.

3.4 Traditional Knowledge in the Environmental Assessment

Recommendation: YKDFN recommend that:

- the Board should keep the registry open until after the Tlicho TK Study is completed
- develop a concordance table that examines how and where the developer used Traditional Knowledge,

what the information that they had was, and what the information from the Tlicho TK Study is
- provide parties the opportunity to review and comment on these matters

3.5 Wildlife Effects Management Plan

Recommendation: YKDFN recommend that the Board

- a) Make the development and full implementation of a Wildlife Effects Management Plan a requirement for any future permits or authorizations
- b) Require the proponent to collaborate with parties to develop a consensus approval to the methods employed. This ensures that the proponent cannot simply refuse to meet its commitments and provides the Parties with a tool to use if best practices are not applied. This approach could also be used to develop thresholds and triggers for adaptive management plans.
- c) Require the proponent to include (but not be limited to) research to evaluate and monitor: trends associated with the hunting effort on the NPAR and associated all weather road, applying the best practices for researching behavioural response of Barren-Ground Caribou, and evaluating caribou interactions with the NPAR access and all weather road.

YKDFN are not asking the Board to design the plan, rather to develop a system that provides for meaningful collaborative development where there is a regulatory tool for parties to utilize to require best practices aimed at effective monitoring and research rather than simply cheapest which may or may not properly evaluate the impacts.

3.6 Incinerator Management Plan – Persistent Organic Pollutants

Recommendation: YKDFN recommend that the Board make a measure that requires

- a) the company to conform to the CCME guidelines
- b) implement a monitoring regime that includes testing to confirm that the company is meeting the guidelines. This monitoring regime should include regular testing as directed by Environment Canada.
- c) develop a local baseline for persistent pollutants

This will allow the parties to have a regulatory mechanism to utilize. Absent this measure, the company is free to pollute in any manner they wish.

3.7 Failure to provide adequate closure information

Recommendation: The Board must require the proponent to collaboratively develop and submit an updated closure plan which adequately meets the guidance of the Terms of Reference and the policy frameworks in the NWT. This must be done prior to the issuances of any decisions or authorization.

3.8 Closure – Security Bonding

Recommendation: The review Board should provide guidance to the Land and Water Board that this project will likely result in significant effects unless a security is posted that contains not just sufficient monies for a 'worst case situation' (perpetual water treatment) as well as a significant contingency for unforeseen events.